
**Centre for Urban and Social Research.
Swinburne Institute of Technology.**

**Social Survey Techniques
for
Assessing the Effects
of
Drink-Driving Countermeasures.**

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1. INTRODUCTION

1.1 Telephone Interviewing: Background

Since the development of Computer Aided Telephone Interviewing (CATI) in the early 1970's, along with a range of related data capture and computer assisted interviewing and coding products, there has been a rapid expansion of research into many aspects of survey methodology using this new technology.

This research has been carried out essentially by three groups: Commercial market research organisations have been at the forefront in both adopting and developing CATI networks in the expectation that this technology would offer speed, reduced costs and perhaps better accuracy in their data collections. Tertiary institutions, particularly in survey centres at Berkeley, Michigan, UCLA and Wisconsin in the United States, were instrumental in extending the capabilities of the early CATI systems. These extensions included features such as, greater flexibility in terms of question types that could be handled by the system, call scheduling, and random digit dialing mechanisms. Finally the official statistical bureaus in many countries world-wide have developed or are trialing CATI systems. The data requirements of such agencies is likely to lead to the development of 'form-based' data capture systems in contrast to the 'item-based' systems which characterise most operational CATI systems on the market. These 'form-based' systems allow the interviewer to complete multiple data items on the one screen in any order, reflecting the reality of the different record systems in business establishments (Nicholls and Groves (1986)).

Future developments of CATI will not be restricted to the research and development activities of these three groups. Major commercial organisations, particularly the financial institutions in Australia, are showing a keen interest in this technology. The potential to interface a CATI system to the integrated customer databases will facilitate in-house marketing of financial products.

As a survey research tool, the expectations of the early CATI systems was to achieve better accuracy, more timely output and an overall reduction in costs. The improved accuracy was to be achieved by having better control over the interviewing process, by allowing the computer to determine the skip sequence logic based on responses, and to improve response rates. By the early 1970's the response rates being achieved in some household surveys were unacceptable and some target populations were proving to be elusive. As CATI systems evolved it became clear that the researcher had the potential to improve performance in this area.

Firstly, the telephone access to householders had increased significantly throughout Australia in the period from 1975. Secondly, elusive target populations had the potential of being contacted more readily by telephone due to the relative cost advantage of telephone call-backs compared to call back strategies in traditional household surveys. Furthermore, the CATI system offered the flexibility of using a number of contact strategies including: a randomly generated telephone number, a number extracted from a telephone directory or a number drawn from a bank of known eligible sampling units.

Telecom estimates for household telephone ownership levels in Australia were 66.5% in the period 1974/75, with considerable variation between ownership rates in the capital cities compared to the rural areas (Telecom (1980)). By March 1983 the Australian Bureau of Statistics had commenced a statistical collection on household telephone connections as part of the supplementary surveys attached to the monthly Labour Force Survey. At that time it was estimated that 85.3 of households in private dwellings had the telephone connected. This percentage had increased to 91.3% by March 1986. However there was considerable variation in the rates for different age-sex cohort groups, with the lowest rate relating to males in the age range 15-24 years (ABS (1986)). This age-sex cohort group spans the target group (18-24 year old males) for this study.

One of the major capabilities of current CATI systems is the online call scheduling, case assignment and sample management. The CATI system itself is responsible for the selection of a case once the interviewer issues the request. The priority, sequence and timing of calls may be set by the system until such time as the respondent is first contacted. In a household survey, by way of contrast, the interviewer is responsible for most decision-making related to the sequence of visits, the timing of visits and call back arrangements.

1.2 Research Context: Drink-Driving Countermeasures

Legislative measures aimed at improving road safety have concentrated on efforts to reduce the incidence of drink driving. These efforts have involved two types of activity: deterrence, to discourage drivers from committing drink driving offences, and enforcement, to ensure that offenders have a high probability of being caught, convicted and punished. Measures intended to have one or both of these effects include random breath testing, zero blood alcohol concentration requirements for probationary licence holders, and changes in the minimum ages for purchasing alcohol and gaining a licence to drive.

Attempts to assess the impact of such measures have met with limited success, mainly due to the simplistic criteria used for evaluating their effects. Most evaluations have considered effects in terms of changes in accident rates, but it is generally recognised that traffic accidents result from a multiplicity of causes, and that accident rates alone are not good indicators of the effect of drink driving countermeasures. Some attempts have been made to assess changes in driver's perceptions of risk to arrest as a result of new countermeasures, and Ross (1982) has suggested that such evaluations can provide useful data for determining countermeasure effects. There is however a recognised need for the refinement of techniques. Regular random sample surveys of drivers can provide valuable longitudinal data for assessing the short and medium term effects of drink-driving countermeasures.

This project is part of a broader study aimed at developing protocols to measure drivers' perceptions of risk to police apprehensions, to measure driving behaviour particularly in relation to alcohol consumption, to test sample designs for use in the computer-aided telephone interviewing environment in Australia and to measure respondent willingness to participate in a longitudinal study on this issue. The particular focus of this report is an examination of response rates and costs for different sample designs.

2. METHODOLOGY

2.1 Measuring Response Rates

A brief reference was given in Section 1.1 to the changing telephone connection rates for households in Australia. While it is gratifying to observe an overall increase in connection rates in recent years, particularly if one is to continue to use the telephone as a sample contact and data collection tool, nevertheless considerable variation in connection rates persists for some target groups. For a target population of 18-24 year old males, many have no chance of being selected in the sample and hence are never measured by the survey instrument. This problem of non-coverage of the target population presents a significant problem for researchers, particularly in accounting for the contribution this non-coverage makes to the total survey error. Attempts to reduce the impact of non-coverage is often made by population adjustment procedures using the latest available population census data on variables such as age and gender. Some researchers however prefer to redefine the inferential population to exclude those households without telephone connections.

The Australian experience in this regard is not unique. Groves(1987) reports that studies in the United States have yielded consistent findings that poor, more socially isolated, more transient, younger and male members of U.S society tend to be subject to greater non-coverage errors in sample surveys which have a particular focus on measuring the household population. This problem is not restricted to collection methods involving the use of the telephone.

Non-response in surveys, in contrast to non-coverage, refers to the failure to obtain measurements on the sample elements. In the CATI environment non-response can arise through failure to contact persons associated with the sampled telephone number, by refusal to participate in the survey once contacted or through a failure to proceed with the interview due to respondent disability or handicapp.

There are a number of reasons why it is important for non-response to be both measured and reported. Firstly, statistical measures based on respondents alone will be biased estimates of the full telephone population. Secondly, since sampling error is a function of the sample size, the sampling error will increase as the non-response rate increases. Thirdly, non-response adds to the cost of telephone surveys by necessitating operational strategies for call-backs and longer dialing times.

It has been pointed out by Groves(1988) that non-response error produces its effect through two components, the response (or non-response) rate and the difference between respondents and non-respondents measured on some statistics in the following way.

$$Y_n = w_1 \cdot Y_r + w_2 \cdot Y_{(n-r)}$$

Where

Y_n is the statistic for all n sample cases

Y_r is the statistic for all the r respondents

$Y_{(n-r)}$ is the statistic for all the $(n-r)$ non-respondents

w_1 is the proportion of respondents

w_2 is the proportion of non-respondents

This result can be expressed as

$$Y_n - Y_r = w_2 [Y_r - Y_{(n-r)}]$$

Thus it can be observed that the non-response error is a function of both the non-response rate (w_2) and the difference between the respondents and non-respondents on the statistic being measured. Clearly, if this was the case in practice for a particular statistic then the overall response rate would be zero, irrespective of the non-response rate itself. This basic model may be extended to include other components of non-response error such as the non contact component, the refusal component, and the incompetent to provide an interview component of a survey. A further extension has been proposed by Groves(1988) to include the variable effect of interviewer ability to pursue elusive respondents.

Despite the fact that non-response error could theoretically increase with a high response rate, attention has traditionally focused on reporting response (or non-response) rates as a measure of non-response bias. The calculation of these rates however is by no means standardized in published survey results. Furthermore response rate comparisons across different survey designs may be subject to misinterpretation unless different sample outcomes are identified and reported.

For telephone surveys the following sample outcomes have been identified by Groves(1988):

I	= completed interviews
P	= partial interviews
NC	= noncontacted but known eligibles
NA	= unanswered numbers
R	= refused eligible numbers
NE	= noneligible units
NI	= other noninterviewed units

From these outcomes a number of useful response rates may be calculated:

1 The co-operation rate

$$I/(I+P+R)$$

This rate is the ratio of completed interviews to all contacted eligible cases capable of being interviewed.

One difficulty with this rate is the **R** term. In many telephone surveys a refusal may be encountered before it has been established if the contact is eligible. In this context a reinterview strategy for refusals may be appropriate for either establishing eligibility or seeking a reconsideration to be interviewed. This latter strategy could clarify differences between both respondents and non-respondents at different stages in the interview process.

2. Fieldwork response rate

$$I/(I+P+R+NC)$$

This rate is a measure of how completely the sample cases which could have provided measures in accordance with the survey instrument, did in fact produce them. A difficulty with this ratio is the term **NC**, which assumes that all these eligible noncontacts would in fact be capable of being interviewed. This is unlikely in practice due to language barriers and other forms of disability.

3. Survey procedure response rate

$$I/(I+P+R+NC+NA+NI)$$

This rate includes in the denominator both numbers that could supply survey measures and unanswered numbers or other noninterviewed units. This latter component would not consist entirely of eligible units and in this respect the measure is conservative.

4. The contact rate

$$(I+P+R+NI)/(I+P+R+NI+NC+NA)$$

The contact rate is a useful measure in assessing the how successful the fieldwork has been in alerting the sample to the survey.

2.2. Sample Frames

Three different approaches were explored in order to access male drivers in the age range 18-24 years. The first was a random digit dialing strategy with a number of preset prefixes. The second was a systematic sample selection from a directory listing of all 'residential' telephone numbers within pre defined postcodes of Melbourne. The third sample was drawn from the Victorian Road Traffic Authority Driver Licence Register. In each sample design the same survey instrument was used (see Appendix A)

Random Digit Dialing

A sample of 200 telephone numbers were selected using the random number generation facility on the Swinburne CATI system. This was achieved by firstly ranking all Local Government Areas in the Melbourne Statistical Division by the size of their populations of males aged 12-17 years at the 1981 Census (the data for the 1986 Census had not been released at the time the first sample was drawn). The selected areas were; Broadmeadows, Doncaster, Frankston, Knox, Moorabbin, Sunshine, Waverley, Nunawading, Springvale and Keilor. These areas were mapped against Telecom districts and ten prefixes were selected. The CATI system was then used to randomly generate the remaining four digits for banks of twenty numbers from each prefix.

Directory Listings

This sample was achieved by randomly selecting every third number from a list of telephone numbers supplied by Micromation, a firm which retails telephone number lists derived from directories. The numbers were purchased by the Centre for Urban and Social Research for a set of postcode areas of Melbourne which had the highest concentrations of flat dwellers. The aim of this strategy was to concentrate the effort in those areas where one could reasonably expect high concentrations of the target population.

The postcode areas selected were South Melbourne(3205), Prahran(3181), Richmond(3121), Fitzroy(3065) and Collingwood(3066), The sample consisted of 3256 telephone numbers.

A claim by Micromation was that the listings were 'clean' in the sense that the numbers were supposed to be household connections only. There is reason to doubt this claim given the response rate data for this design (see Section 3.1). Recent innovations by Phillips Data Services in association with United Directories Ltd with the production of both White and Yellow Pages directories on compact disk will increase the cost effectiveness of designs using this strategy.

Driver Licence Register

The Victorian Road Traffic Authority was most cooperative to our request to contact a random sample of 500 males, aged between 18 and 24 years, to be drawn from the Driver Licence Register. The selected persons were first contacted by letter by the RTA. The letter contained a cover statement from the RTA stating that no names had been provided by the authority and that the study was entirely voluntary. Selected males were requested to complete a brief form, irrespective of whether or not they intended to participate in the study (see Appendix B). To assist in this process they were provided with a reply-paid envelope.

Those persons who indicated their willingness to participate in the survey were subsequently interviewed using the CATI system. The contact numbers used had been supplied by the respondent at the first stage of the design and consisted of both residential or work numbers as appropriate.

3. RESULTS

3.1 Response Rates

In attempting to compare the different sample designs it should be appreciated that the third sample, using the Driver Licence Register, could not strictly be termed a telephone survey design. It is a mixed mode design where the first stage is a mail survey and the second a telephone survey of volunteering eligible respondents. The sample outcomes however have been classified according to categories commonly accepted as a basis for the calculation of response rates, and are presented in Table 1.

TABLE 1
SAMPLE OUTCOMES by SAMPLE DESIGN

Outcome	Random Digit Dialing	Directory	Driver Licence Register
Gross Sample.	200	3256	499
less			
Bad No's.	60	281	N/A
No answer.	54	1043	398
Business No's.	6	81	N/A
Eligible. respondent non-contact.	N/A	N/A	32
Net Sample.	80	1851	69
Ineligible.	71	1625	24
Refusals.	2	111	13
Callbacks not converted.	5	23	2
Consent outside survey time.	0	0	2
Completed.	3	92	28

These results can be converted into a number of useful comparative rates using the response rate measures discussed in Section 2.1. However some qualifications are needed. Firstly, in the calculation of the co-operation rate, the refusal (R) component has been defined as 'refused eligible numbers'. This term may be misleading in the context of a sample design scheme where the target population is a partial subset of the sampling frame. Clearly the target population in the context of the study refers to all motor vehicle drivers who are male and aged between eighteen and twenty-four years, whose normal residence is Melbourne. The sample frame however was a list of telephone numbers, so that a refusal is defined as a refusal of any responding person to participate in the survey. The comparative response rates are summarized in Table 2. The calculations in Table 2 assume a correspondence between the components in the response rate formulae and the sample outcomes summarized in the table as follows;

Bad Numbers	NE	
No Answer	NA	
Business	NE	
Completed	I	
Ineligible	NE	
Refusals	R	
Callbacks not Converted		P
Eligible Respondent non-contact		NC
Concent outside Survey		NI

TABLE 2
RESPONSE RATES for DIFFERENT SAMPLE FRAMES

Response Rate	Random Digit Dialling	Directory	Driver Licence Register
Co-operation Rate	30%	41%	65%
Fieldwork Rate	30%	41%	37%
Survey Procedure Rate	4.7%	7.2%	5.9%
Contact Rate	15.6%	17.9%	9.5%

It is noteworthy that the method of directory sampling produced consistently higher response rates than the random digit dialling strategy in this study. Some caution is needed in interpreting these results however, given that there was such a low number of completed interviews in the random digit dialling study. The response rates are highly sensitive to a small increase in the number of successful interviews, if the number of successful interviews is itself small.

Research has shown that 'cold' telephone surveys generally produce lower response rates than face to face interviewing. The difference can be largely explained by the ease with which it is easier to establish non contacts with repeat diallings in telephone surveys and the greater ease for respondents to refuse, particularly at the outset of the telephone interview.

A comparison across all three sampling methods is difficult due to an unanticipated error in the method used by the RTA in drawing the random sample of 500 male licenced drivers. In the early replies to the mailout, by both mail and telephone, confirmed that an unknown number of the initial sample were in fact over twenty-four years of age. This defect in the frame was due to a programming error in the random selection of names and addresses from the Driver Licence database. The selection mechanism did not randomly select names for each of the age cohorts in proportion to the number of person in each of the age cohorts 18, 19,through to 24. Instead the selection mechanism simply took 500 names from the 'top' of the database. The RTA agreed to rerun the sample, but the limited funding for the project prevented the completion of the telephone interviewing component of the second sample. However comparative data on the responses to the mail-out for each sample is provided in Table 3

TABLE 3
RESPONSE TO RTA MAIL-OUT

	FIRST SAMPLE	SECOND SAMPLE
	-----	-----
Agree to interview	64	37
Refuse to be interviewed	13	6
Not available	0	1
Ineligible	24	0
No reply/wrong address	398	443

In both of these samples the 'success' rates, as measured by the percentage of those willing to participate in the study, were relatively low for a single mailout, being 12.8% for Sample 1 and 7.4% for Sample 2. One could reasonably expect these rates to improve with a fully operational mail survey involving follow-up reminder cards and one or more additional mail outs of the request for participation. Such a requirement would have involved a far greater level of monitoring responses by the RTA, a task that was beyond their resources at the time of the survey.

3.2 Costs Analysis

Since the schedule developed for the study was essentially the same for each sample (the only variation being the verbal introduction, particularly as it related to the RTA sample) the factors taken into account in the cost comparison excludes the cost of developing and testing the survey schedule. The comparison between the samples takes into account the following cost items:

- (a) Interviewing training
- (b) Interviewing time
- (c) Preparation of telephone files
- (d) Supervision of operations
- (e) Data preparation
- (f) Mail out costs (Sample 3)
- (g) Purchase of telephone numbers by postcode (Sample 2)

The resulting costs per completed interview is given in Table 4.

TABLE 4
Cost per Completed Interview by Sampling Method

Random Digit Dialling	\$222
Directory	\$49
Driver Licence Register	\$72

The small number of completed interviews in the random digit dialling sampling scheme over estimates the cost that one would expect in a larger trial using this methodology. For example one additional successful interview using this method would have reduced the unit cost to \$188. Nevertheless these costings are particularly useful as a planning tool for telephone surveys work both in terms of the relative unit costs and in terms the cost relative to the size of the initial sample size.

4. CONCLUSIONS

As survey research organisations began to grapple with declining response rates in the late 1960's, the telephone was being heralded as the beginning of a new era in data collection. The telephone network, coupled with an emerging computer technology, offered both social and market researchers potential cost reductions in data entry, better access to householders living behind apartment security systems, better supervision of fieldwork procedures, particularly interviewer-respondent interaction and better control over skip logic in survey schedules. In many respects these early expectations have been able to stand the test of time

There are however, a number of shortcomings in the use of CATI systems as the sole data collection mechanism, for certain types of survey research. In particular, the target population which was the focus for investigation in this study, was under represented in terms of telephone connections than any other age-sex cohort group in the community. This fact implies that there will be major coverage problems if the telephone system was to be used as the sole basis for the data collection. It was for this reason that this research examined the feasibility of using administrative records (the RTA Driver Licence Register), as a basis for selecting a sample of the target population, who would hopefully volunteer to participate in the survey. The response rates from this approach were disappointing, particularly at stage one of the process, where there was a requirement to return a completed slip by reply-paid mail. One could expect to improve on the stage one response, by building in the normal controls for successive waves of mail-outs, as would be applied in the case of a well run mail survey. With appropriate resources allocated to this stage of the data collection process, the benefits of the CATI system can be realized, for both cross-sectional and for longitudinal surveys.

The study highlights the need for survey researchers to measure response rates from a variety of perspectives. Sometimes it may be important to compare contact rates across surveys and on other occasions it may be important to measure the survey co-operation rate, such as in the sample based on the RTA sample frame.

While it has been possible to measure a range of response rates for the three different sampling methods under investigation, the problem that remains is the extent to which non-response contributes to the total survey error. It is evident, that customers who require information based on sample data, will need to see evidence of strategies to both increase response rates and to measure and monitor refusal conversions, irrespective of the collection method in the survey.

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APPENDIX A

Telephone Survey Questionnaire

Date 01-01-1980

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FILE stop.itv

SURVEY ID STOP

LOCATION ID swi

Preamble Data

1 Hello my name is ***** and I am calling on behalf of the Centre

1 collecting name is and I am calling on behalf of the Centre
 2 for Urban Studies, Swinburne Institute of Technology.
 3 At present we are conducting a survey of young men, 18-24 years
 4 of age, who hold or have held a Victorian Drivers' Licence.
 5 Could you please tell me if there is anyone in residence who
 6 fits this description and if so could they please take the line.
 7 *****Hollo.....Licence)*****
 8 The task required of you is to answer a series of questions
 9 concerning the driving behaviour and the use of alcohol within
 10 your age group. The session should take about 10 minutes.
 11 Your number was generated at random and your identity is
 12 unknown. If you would like to check my identity please ring the
 13 Centre for Urban Studies on 819 8825.
 14 If at any time you wish to ask a question or to change an
 15 answer please feel free to do so. The first set of questions
 16 deal with establishing your driving history,

No Enumeration Table Present

Question No. 1 Type 5 Answer Style 1,3

At present are you licenced to drive,

		Branch to	
		On if Ans	
1	A car	3	1
2	A motorcycle	3	2
3	Both	2	3

Question No. 2 Type 1 Answer Style 1,2

Which type of vehicle do you use most often, a car or a motorcycle ?

- 1 Car
- 2 Motorcycle

Question No. 3 Type 3 Answer Style 1

When did you obtain this licence ?

- 1 Mth. Year.

Question No. 4 Type 5 Answer Style 1,4

At present is your licence a,

	Branch to	
	On	if Ans
1 Probationary licence	5	1
2 Full licence	8	2
3 Endorsed Licence	8	3
4 Suspended/cancelled licence	9	4

Question No. 5 Type 5 Answer Style 1,4

How often do you display your P plates ?

	Branch to	
	On	if Ans
1 Always	8	1
2 Sometimes	6	2
3 Never	6	3
4 Not applicable	8	4

Question No. 6 Type 4 Answer Style 1-6

Please consider the following situations
In which of these situations would you
be likely to drive without displaying
your P plates ?

- 1 When driving on F/S night
- 2 When carrying several people
- 3 When going to a party
- 4 When returning from a party
- 5 After consuming alcohol
- 6 Other

Question No. 7 Type 3 Answer Style 1

Please think back to the last time that
you drove without displaying your P
plates.....What were the circumstances
which caused you not to display them.?

Question No. 8 Type 5 Answer Style 1,3

Has your licence ever been suspended or cancelled, please answer yes or no.

Branch to	
On if Ans	
9	1
10	2
10	3

- 1 YES
- 2 NO
- 3 ANSWER NOT GIVEN

Question No. 9 Type 3 Answer Style 1

How many times has your licence been suspended and/or cancelled ?

Question No. 10 Type 3 Answer Style 1

We have now completed the first series of questions. Before continuing, however, it would be of assistance to our study if you could tell me your date of birth. The Mth. & Yr. are sufficient.

1 Mth. Yr.

Question No. 11 Type 2 Answer Style

The next series of questions concern the use of alcohol by both yourself and the people you mix with, socially and in the work place. Firstly, consider the people whom you see most often.....

Question No. 12 Type 1 Answer Style 1,6

....How many of them would have a drink of beer, wine or liquor at least once a month ?

- 1 All
- 2 Most
- 3 Some
- 4 Few
- 5 None
- 6 ANSWER NOT GIVEN

Question No. 13 Type 5 Answer Style 1,6

For the past twelve months, which of the following categories best describes, on average, your own consumption of alcohol

	Branch to	On if Ans
1 3 or more times daily	14	1
2 Once a day	14	2
3 2-4 times a week	14	3
4 Once a week	14	4
5 1-2 times a month	14	5
6 Do not drink	35	6

Question No. 14 Type 1 Answer Style 1,5

Please think back over the past month. On a typical day that you drank in that month, which of the following categories best describes the amount of alcohol that you drank.

- 1 1-2 glasses
- 2 3-4 glasses
- 3 5-6 glasses
- 4 More than seven glasses
- 5 ANSWER NOT GIVEN

Question No. 15 Type 1 Answer Style 1,6

In the past month, what was the most that you drank on any one day?

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 FILE stop.itv
 SURVEY ID STOP
 LOCATION ID swi

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- 1 1-2 glasses
- 2 3-4 glasses
- 3 5-6 glasses

- 3 0-6 glasses
- 4 7-8 glasses
- 5 More than 9 glasses
- 6 ANSWER NOT GIVEN

Question No. 16 Type 2 Answer Style

The following question consists of a list of places where alcohol is available. If you have obtained alcohol from the described location then answer yes when you hear the location read;

Question No. 17 Type 4 Answer Style 1-6

If a location is read from which you have not obtained alcohol, then answer no.

- 1 From home
- 2 At parties
- 3 At friends' homes
- 4 Bottleshops, supermarkets, etc.
- 5 Bars, clubs, restaurants
- 6 Some-one else buys it

Question No. 18 Type 5 Answer Style 1,3

Now, think back to before you were 18 years old. Did you drink alcohol before you were 18 ?

- 1 YES
- 2 NO
- 3 DO NOT REMEMBER

Branch to	
On if Ans	
19	1
25	2
25	3

Question No. 19 Type 5 Answer Style 1,5

Where did you most often obtain your alcohol

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 LOCATION ID swi

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Branch to	
On if Ans	
22	1

- 1 From home

1	At home	22	1
2	At parties	22	2
3	At friends' homes	22	3
4	Bottleshops, supermarkets	20	4
5	Bars, clubs, restaurants	20	5

Question No. 20 Type 5 Answer Style 1,3

Did you purchase your own drinks or were they bought for you by some other person

		Branch to	
		On if Ans	
1	PURCHASED BY SELF	21	1
2	PURCHASED BY ANOTHER	25	2
3	DON'T REMEMBER	25	3

Question No. 21 Type 5 Answer Style 1,5

How often were you asked about your age when you purchased alcohol ,

		Branch to	
		On if Ans	
1	Often	25	1
2	Sometimes	25	2
3	Rarely	25	3
4	Never	25	4
5	DON'T REMEMBER	25	5

Question No. 22 Type 5 Answer Style 1,4

When drinking at home, friends' homes or parties who was the alcohol usually supplied by ?

		Branch to	
		On if Ans	
1	Yourself	23	1
2	Friends	25	2
3	Parents, friends' parents	25	3
4	ANSWER NOT GIVEN	25	4

Question No. 23 Type 5 Answer Style 1,3

- 1 PURCHASED BY SELF
- 2 PURCHASED BY ANOTHER
- 3 ANSWER NOT GIVEN

Branch to	
On if Ans	
24	1
25	2
25	3

Question No. 24 Type 1 Answer Style 1,5

How often were you queried about your age when you purchased the alcohol ?

- 1 Often
- 2 Sometimes
- 3 Rarely
- 4 Never
- 5 Don't Remember

Question No. 25 Type 2 Answer Style

It is being proposed that the minimum age for the purchase of alcohol should be raised from 18-21. The reason for this is the large number of youths who are at risk from the combination of drinking

Question No. 26 Type 3 Answer Style 1

and driving. What effect do you think raising the minimum age will have on you and your friends who are under 21 ?

Question No. 27 Type 4 Answer Style 1-6

If the minimum age was changed to 21 where do you consider that people who are under 21 would obtain their alcohol,

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 FILE stop.itv
 SURVEY ID STOP
 LOCATION ID swi

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- 1 From home
- 2 At friends' homes
- 3 At parties

- 4 From supermarkets, bottleshops
- 5 From hotels, restaurants
- 6 Ask another to purchase

Question No. 28 Type 5 Answer Style 1,4

When you anticipate drinking away from home, which of the following do you do most often

- | | |
|-------------------------|-----------|
| | Branch to |
| | Qn if Ans |
| 1 Drive yourself there | 29 1 |
| 2 Go in a friends' car | 30 2 |
| 3 Take public transport | 32 3 |
| 4 Other | 32 4 |

Question No. 29 Type 5 Answer Style 1,3

Do you usually drive home ?

- | | |
|------------------|-----------|
| | Branch to |
| | Qn if Ans |
| 1 YES | 32 1 |
| 2 NO | 30 2 |
| 3 DON'T REMEMBER | 32 3 |

Question No. 30 Type 3 Answer Style 1

Who usually drives you home ?

Question No. 31 Type 1 Answer Style 1,6

In general, how much would the driver have drunk before driving ?

- 1 No alcohol
- 2 1-2 glasses
- 3 3-4 glasses

- 4 5-6 glasses
- 5 More than 7 glasses of alcohol
- 6 DON'T KNOW

Question No. 32 Type 3 Answer Style 1

When you are considering whether to drive after drinking alcohol, what is the most important factor in your decision ?

Question No. 33 Type 2 Answer Style

On an occasion where you were driving after drinking alcohol, how would you rate your chances of being stopped and asked to take a breathalyzer test. Please answer on a scale of 1-10,

Question No. 34 Type 7 Answer Style 1,10

where 10 is very high and 1 is very low.

very low 1_1_1_1_1_1_1_1_1_1_1_1_1_1_1_1 very high

Question No. 35 Type 5 Answer Style 1,3

Have you been in a car which has been stopped by police for the purpose of administering a breathalyzer test to the driver

	Branch to
	Qn if Ans
1 YES	36 1
2 NO	39 2
3 DON'T REMEMBER	39 3

Question No. 36 Type 3 Answer Style 1

How long ago was the last time ?

Question No. 37 Type 3 Answer Style 1

Who was driving the car ?

Question No. 38 Type 1 Answer Style 1,2

Had the driver of the car had any alcohol to drink before being stopped ?

- 1 YES
- 2 NO

Question No. 39 Type 3 Answer Style 1

The study in which you have participated is to be run every year in order to look for patterns in the behaviour of male drivers. Would you consent to another interview next year, (Phn. contact pt.)

- 1 Y/N Phn. No.

Question No. 40 Type 1 Answer Style 1,5

ATTENTION INTERVIEWER****

Please select the category which describes the result of the telephone call

- 1 Completed questionnaire
- 2 Callback required
- 3 Respondent refusal
- 4 School/buisness/church
- 5 Respondent ineligible

APPENDIX B

RTA Mail Survey



Road Traffic Authority

Driver Licences

Contact: V. LAWRY/jw Tel: 345 4472
Our reference: Your reference
Date: 27 JUN 1988

560 Lygon Street
Carlton Victoria

Address mail to:
Road Traffic Authority
P O Box 777
• Carlton South Victoria 3053

Telephone: 345 6922

Mr John Pidgeon
Centre for Urban and
Social Research
P O Box 218
HAWTHORN 3122

Dear Mr Pidgeon

I refer to your letter dated 17 May 1988 and advise that letters were mailed on 20 June 1988 to five hundred randomly selected male drivers, aged 18 - 24 years and living in the Melbourne metropolitan region.

A copy of the Authority's enclosure to your letter is attached, for your information.

Best wishes for the success of your project.

Yours faithfully

A handwritten signature in cursive script, appearing to read 'V. Lawry'.

V LAWRY
A/MANAGER - DRIVER LICENCE SERVICES

v93



Swinburne Institute of Technology
PO Box 218 Hawthorn 3122 Australia
Telephone 819 8911
Telex 'Swinbn' AA 37769
Fax 819 5454

CENTRE FOR URBAN & SOCIAL RESEARCH.

17th May 1988

Mr. Terry O'Keefe,
Road Traffic Authority,
560 Lygon Street,
CARLTON

Dear Mr. O'Keefe,

I would like to follow - up our informal discussion recently concerning a method of accessing young male drivers using the Driver Licence Register.

The Centre for Urban and Social Research at Swinburne Institute has been granted research funds from the Federal Office of Road Safety to compare social survey techniques for assessing the effects of drink - driving countermeasures. This grant was delayed in 1987 due to the Federal Election.

A particular focus of the research is to compare the success rates for contacting and interviewing male drivers in the 18 - 24 year cohort. To date we have sampled this cohort group by telephone using both a random digit dialling method and a methodology using listed numbers from the White Pages.

I would appreciate the assistance of the RTA in drawing a sample of drivers from the Driver Licence Register. Our discussions last year suggested an arrangement along the following lines.

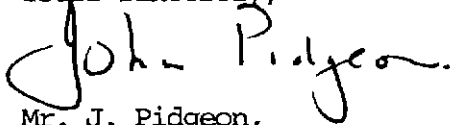
1. Swinburne to pay for administrative, computer programming and mailing costs.
2. Swinburne to provide the RTA with a letter of introduction, a prepaid envelope to Swinburne and an agreement to be interviewed card or tear-off, for each person in the sample.
3. RTA to provide a random sample of 500 Licenced Drivers (including drivers who may have licences endorsed, suspended or cancelled) who are;
 - (i) male
 - (ii) age 18 to 24 years
 - (iii) postal address the Melbourne Metropolitan Region
4. RTA to mail out the Swinburne letter of introduction, a prepaid envelope and the agreement to be interviewed card to each person drawn in the sample. The RTA would probably want to include a covering letter.

I have included a draft of the letter and tear-off section that we would like included in the mailout.

If the RIA can see its way clear to assist in this work, I would like to confirm with you a likely mail out date. This will enable me to more accurately specify the date stated on the attached draft as the time interviews will be conducted, and to assist with printing deadlines.

Thankyou for your assistance.

Yours Sincerely,

A handwritten signature in cursive script that reads "John Pidgeon". The signature is written in black ink and is positioned above the typed name.

Mr. J. Pidgeon,
Centre for Urban and Social Research,
Swinburne Institute of Technology.



Road Traffic Authority
Driver Licences

Contact:
Our reference
Your reference
Date:

2 0 JUN 1988

560 Lygon Street
Carlton Victoria

Address mail to:
Road Traffic Authority
P O Box 777
Carlton South Victoria 3053

Telephone. 345 6922

Dear Sir,

I have enclosed a letter together with a post-paid envelope from the Swinburne Institute of Technology asking for your assistance in researching the driving characteristics of young male drivers.

Your name was selected by the Authority at random from the Authority's records of male drivers aged between 18 and 24 years and who live in the Melbourne Metropolitan area.

The Swinburne Institute was not involved in this process, has not been given your name and is therefore not aware in anyway that you have been sent this letter.

Your participation in this programme is entirely voluntary and would be most useful to the Swinburne Institute. You are assured that your licence records remain confidential to the Authority.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'T. O'Keefe'.

T. O'KEEFE
GROUP MANAGER - DRIVER LICENSING

TER3



Swinburne Institute of Technology
 PO Box 218 Hawthorn 3122 Australia
 Telephone 819 8911
 Fax 819 5454

Dear Licenced Driver,

The Swinburne Centre for Urban and Social Research is currently undertaking research into the driving characteristics of young male drivers in the age range 18 to 24 years.

The Road Traffic Authority has assisted us in this work, by mailing to you this letter, together with a tear off section below and a reply paid envelope. This has been done to ensure that your name and address remain anomous.

I would appreciate your co-operation by agreeing to be interviewed by telephone sometime over the next two weeks. The questions we would like to ask you relate to your driving behaviour, and the interview should take between five and ten minutes. To be eligible you must hold a current Victorian Drivers Licence, and be aged 18 to 24 years. If your licence is endorsed, or at present suspended/cancelled you are still eligible for the survey.

The interview session will be held in the evenings 5.30 to 8.30 on Monday through Thursday over a two week period, beginning on 4th July.

I would be pleased if you could complete the tear-off section below and mail it back to Swinburne at your earliest convenience.

Yours Sincerely,

John Pidgeon

Please complete the following questions and return this section in the prepaid envelope.

- | | | | | | | | | | | | |
|----|---|--|--------------------------|--|--|--|--|--|--|--|--|
| | | Yes | No | | | | | | | | |
| 1. | I am able to assist in this research | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | |
| 2. | A contact telephone number for me is | <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table> | | | | | | | | | |
| | | | | | | | | | | | |
| 3. | I will normally be available for interview at the following times | | | | | | | | | | |
| | Monday | between _____ pm and _____ pm | | | | | | | | | |
| | Tuesday | between _____ pm and _____ pm | | | | | | | | | |
| | Wednesday | between _____ pm and _____ pm | | | | | | | | | |
| | Thursday | between _____ pm and _____ pm | | | | | | | | | |
| 4. | When we call you, who should we ask for
(no surname is necessary)? | _____ | | | | | | | | | |
| 5. | I am not contactable by telephone but I agree to be interviewed in person at the following address. | | | | | | | | | | |
| | ADDRESS: | Street _____ | | | | | | | | | |
| | | Suburb _____ | | | | | | | | | |
| | | Postcode _____ | | | | | | | | | |